

REMARKS/ARGUMENTS

Claims 17 and 19-32 are pending. Claims 17 and 26 have been amended. No claims have been cancelled. No new claims have been entered. Support for the amendments may at least be found at paragraphs [0028]-[0031] of Applicants' specification and FIGS. 1-4. Applicants respectfully request the Examiner to reconsider his rejection with regard to the claims as amended herein and in consideration of the remarks that follow.

Telephone Interview

On December 29, 2006, Applicants conducted a telephone interview with Examiner Heinrich. Applicants would like to again thank Examiner Heinrich for taking the time out of his busy schedule to discuss the claims and teachings of the prior art cited in this matter. During the telephone interview, Examiner Heinrich disclosed his reliance upon paragraphs [0001] and [0002] of Applicants' specification. His reliance upon the aforementioned description was not set forth in framing the rejections of the prior Office actions or present Office action mailed on July 10, 2006.

Rejections under 35 U.S.C. §103(a)

The Examiner asserts claims 17, 19, 20, 22, 25-27 and 29-32 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S.P.N. 5,884,906 to Morse ("Morse") in view of U.S.P.N. 6,210,507 to Hansen et al. ("Hansen") or in view of U.S. Pub. Appl. No. 2004/0068227A1 to Baylis et al. ("Baylis") or in view of U.S.P.N. 5,760,367 to Rosenwasser et al. ("Rosenwasser").

In framing the present rejection in the Office action mailed on July 10, 2006, the Examiner asserts Morse teaches a workpiece support comprising multiple jaws which can accommodate

multiple and various workpieces, but does not teach a glass clamping face. The Examiner asserts Hansen et al. discloses transparent clamp features. The Examiner asserts Baylis et al. teaches a well known transparent clamp. The Examiner asserts Rosenwasser teaches transparent jaws. Generally, the Examiner asserts the use of a transparent clamp element taught by Hansen or Baylis or Rosenwasser in place of the clamp element taught by Morse would have been obvious to one of ordinary skill in the art at the time applicant's invention was made. The Examiner further asserts Morse teaches working on fewer work pieces than the number of cavities provided, and this constitutes a selective and prescribable clamping.

The Examiner further relies upon Applicants' specification at paragraphs [0001] and [0002].

Applicants' amended independent claim 17 recites the following:

17. A method for machining a plurality of workpieces with a laser beam, comprising:
 - providing a lower pressure plate having a plurality of movable support segments for supporting a plurality of workpieces to be machined, wherein the support segments are flat or punctiform or include both flat and punctiform, and are movable independently from each other vertically relative to the lower pressure plate;
 - providing an upper translucent pressure plate whereby the lower and the upper pressure plate are movable vertically toward each other;
 - pressing the workpieces arranged on the support segments towards the upper pressure plate with a desired contact pressure by moving the lower pressure plate and/or the support segments respectively vertically towards the upper pressure plate; and
 - passing a laser beam from above through the upper pressure plate onto the plurality of workpieces to machine same.

Applicants' amended independent claim 26 recites the following:

26. A device for machining a plurality of workpieces with a laser beam, comprising:

a lower pressure plate having a plurality of movable support segments for supporting a plurality of workpieces to be machined, wherein the support segments are flat or punctiform or include both flat and punctiform, and are movable independently from each other vertically relative to the lower pressure plate;

a translucent upper pressure plate, whereby the lower and the upper pressure plate are movable vertically toward each other;

a laser for passing a laser beam through the upper pressure plate onto the workpieces;

a pressure generator acting at least at one of the pressure plates for biasing the pressure plates toward each other; and

means for moving the movable support segments independently from each other vertically with respect to the lower pressure plate, wherein the workpieces are pressed one after the other or simultaneously against the upper pressure plate at a desired contact pressure.

Applicants respectfully disagree with the Examiner's reliance upon Applicants' specification at paragraphs [0001] and [0002] in framing the present rejection. The aforementioned description does not disclose all of or even one of the steps recited in Applicants' claimed method and device of amended independent claims 17 and 26, respectively. For example, Applicants' amended independent claim 17 recites in part the following:

"pressing the workpieces arranged on the support segments towards the upper pressure plate with a desired contact pressure by moving the lower pressure plate and/or the support segments respectively vertically towards the upper pressure plate;"

Applicants' disclosure of paragraphs [0001] and [0002] do not disclose workpieces arranged on support segments being pressed towards an upper pressure plate with desired contact pressure by moving vertically a lower pressure plate and/or the support segments towards the upper pressure plate. With respect to the claimed device of amended independent claim 26, the disclosure at paragraphs [0001] and [0002] does not mention the lower pressure plate includes support segments or any description concerning support segments. Applicants contend the Examiner has misread and/or misinterpreted the context and breadth of the disclosure at paragraphs [0001] and [0002] of Applicants' specification.

Furthermore, Applicants contend the vice jig taught by Morse is not suitable for clamping work pieces having a strongly differently size or form, and for pressing individual work pieces, out of the plurality of work pieces being clamped, simultaneously against the jaws using different pressures.

Morse teaches in his abstract that his vice jig can accommodate a multiplicity of similarly sized and shaped work pieces. The jig of Morse provides by a hydraulic piston mechanism an even pressure on all such work pieces upon the closure of the vice. The jig can accommodate a number of work pieces fewer than the number of cavities provided, without there occurring any ejection of any such pistons or hydraulic fluid. This work piece support of Morse for machining a plurality of work pieces comprises a first jaw and a second jaw which can accommodate multiple and various work pieces. The first jaw includes pistons for pressing the work pieces toward the second jaw. The first jaw reveals a multiplicity of hydraulically-operating pistons facing from one side of the first jaw towards the second jaw. The second jaw corresponds to the upper pressure

plate of the application, but is both not translucent and not even.

In contrast to the claimed method and device of Applicants' amended independent claims 17 and 26, the pistons taught by Morse are not moveable independently from each other relative to the first jaw. The pistons taught by Morse are moved simultaneously against a workpiece held by the second jaw. Therefore, the pistons of the first jaw are not meant to press the workpieces, one piston after another in succession, against the opposite second jaw. Unlike the claimed method and device recited in Applicants' amended independent claims 17 and 26, the pistons of Morse can neither be set variably and independently from each other, nor be pressed selectively against the second jaw. Morse does not teach individually controllable pistons disposed within the first jaw, or actuating the pistons to press against the work pieces with different desired contact pressures toward the second jaw. The pistons of the first jaw are all operating with the same abutment pressure. The clamping pressure is not individually adjustable for pressing against each work piece. Morse discloses indeed working with fewer numbers of work pieces disposed within the cavities of the second jaw than the number of pistons present in the first jaw. However, this may only be characterized as selective clamping of the work pieces being taught by Morse rather than both selective and prescribable pressing of the work pieces as recited in Applicants' amended independent claims 17 and 26.

Hansen teaches a method for manufacturing a plastic window where an upper pane 4b is held in place by a pressing means 5 against an abutment surface 3b formed against the frame 2 (See Abstract and FIG. 1b). The frame 2 is secured by a securing means 12 and a support 1 as illustrated in FIG. 1b. Hansen

teaches performing the method with at least one pane composed of transparent plastic (see Abstract). Hansen also teaches performing the method using pressing plates 50a and 50b against panes 40a, 40b and frame 20 as illustrated in FIG. 2a. Hansen does not teach using independently movable support segments relative to a pressing means or pressing plate 50a, 50b. Hansen also fails to teach setting the pressing plates 50a, 50b variably and independently from each other, or even pressing selectively more than one workpiece, or a pane, at a time against either pressing plate 50a, 50b. Hansen may teach performing the method using a pane composed of transparent plastic; however, Hansen cannot serve to cure the deficiencies present in Morse. Neither Morse nor Hansen teach using independently movable support segments relative to an upper pressing plate or setting variably and independently each support segment from each other, and pressing selectively each support segment against the workpiece and upper pressing plate as recited in Applicants' amended independent claims 17 and 26.

Baylis teaches using laser welding to attach a laser-transparent component portion to an absorbing component portion at a laser weld joint area (See abstract). Prior to laser welding, the first and second taper locking surfaces cooperate to force and lock the first and second weld surfaces into abutting engagement at a predetermined pressure (Id.). The first and second taper locking surfaces maintain the predetermined pressure during the laser welding process (Id.). Unlike Applicants' amended independent claims 17 and 26, Baylis does not teach the first and second taper locking surfaces move independently of one another or apply 'predetermined pressure' variably and independently from one another or that each taper locking surface even selectively presses against the first and

second laser weld surfaces. Furthermore, Baylis teaches the benefits and significance in maintaining a gap 98 to ensure contact is made at the taper locking surfaces near the bottom of the interface. Baylis may teach performing the method using a laser-transparent component portion; however, Baylis cannot serve to cure the deficiencies present in Morse. Neither Morse nor Baylis teach using independently movable support segments relative to an upper pressing plate or setting variably and independently each support segment from each other, and pressing selectively each support segment against the workpiece and upper pressing plate as recited in Applicants' amended independent claims 17 and 26.

Rosenwasser teaches apparatus and methods for decorating a gemstone with colored indicia (See Abstract). The holder 26 of the apparatus basically comprises a pair of jaws 36A and 36B, and means, e.g., threaded screws 38 for moving the jaws 36A and 36B towards and away from each other to form a vice-like arrangement (col. 4, ll. 34-39; See FIG. 1). By tightening the screws 38, the jaws 36A and 36B are brought closer together to tightly hold the plural gemstones 22 in position (Id., ll. 45-47). The jaws 36A and 36B, or at least portions contiguous to the grooves 40, are formed of a laser-light transmissive, e.g., transparent material (Id., ll. 49-53). One such material comprises the plastic, such as, polycarbonate, or any other transparent plastic or glass (Id., ll. 53-55). The jaws 36A and 36B of Rosenwasser do not move independently of each other or apply pressure variably or independently of each other to the gemstone. Moreover, Rosenwasser does not teach utilizing more than one pair of jaws 36A and 36B in the disclosed apparatus. Rosenwasser may teach performing the method using a laser-light transmissive jaws 36A and 36B; however, Rosenwasser cannot serve

to cure the deficiencies present in Morse. Neither Morse nor Rosenwasser teach using independently movable support segments relative to an upper pressing plate or setting variably and independently each support segment from each other, and pressing selectively each support segment against the workpiece and upper pressing plate as recited in Applicants' amended independent claims 17 and 26.

The combination of the references applied by the examiner does not lead or render obvious an apparatus and method for machining a plurality of workpieces as claimed in Applicants' amended independent claims 17 and 26.

In light of the foregoing remarks and amendments, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. 103(a) and find that claims 17, 19, 20, 22, 25-27 and 29-32 are allowable.

The Examiner asserts claims 21, 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.P.N. 5,884,906 to Morse in view of U.S.P.N. 6,210,507 to Hansen et al. or in view of U.S. Pub. Appl. No. 2004/0068227A1 to Baylis et al. or in view of U.S.P.N. 5,760,367 to Rosenwasser et al. as applied to claims 17 and 26 above, and further in view of U.S.P.N. 6,202,999 to Wayman et al. ("Wayman") or U.S.P.N. 4,095,232 to Cha ("Cha").

Applicants have already discussed at length the teachings of the combinations of Morse in view of Hansen, Morse in view of Baylis, and Morse in view of Rosenwasser as set forth above. Applicants continue to maintain the teachings of each of the aforementioned combinations of prior art references fail to teach, suggest or provide the requisite motivation to one of

ordinary skill in the art to achieve all of the claimed elements of Applicants' amended independent claims 17 and 26.

The Examiner relies upon Wayman to teach a workpiece support having multiple varying pressure application. Wayman teaches a workpiece support device comprising an array of rods in columns and rows with free ends of the rods forming, a support surface, in which support surface recesses can be created by selectively retracting individual ones of the rods (See Abstract). Wayman teaches the rods are not individually retractable or extendable (col. 3, ll. 27-62). For example, Wayman teaches the high pressure source A is normally applied to the connections 7 of the cylinders but can be selectively cut off row by row by individually operating, i.e., closing, the valves A1, A2, A3 (Id., ll. 51-54). One of ordinary skill in the art recognizes that selectively cutting off high pressure source A by individually closing valves row by row will cause all of the rods in that row to retract, or extend in the alternative, in unison. The retraction, or extension, of the rods will not occur independently or individually or even selectively as an entire row of rods rather than an individual rod will retract, or extend.

Wayman fails to teach using independently movable rods relative to a workpiece or a press plate, pressing means, etc. Wayman also fails to teach setting the rods variably and independently from each other, or even pressing selectively more than one workpiece at a time. The rods taught by Wayman cannot act independently of each other and must act in concert within each row and/or column. Wayman cannot cure the deficiencies present in the combinations of Morse in view of Hansen, Morse in view of Baylis and Morse in view of Rosenwasser.

The Examiner relies upon Cha to teach a plurality of independent stimulator means in combination with a pressure plate (claim 6). Upon closer review of the teachings of Cha, Cha is directed to a method and apparatus for use in an ink jet printing device to synchronously produce a plurality of uniform fluid filaments and droplets (see Abstract). The plurality of independent stimulator means are described as stimulator members 16 that preferably utilize piezoelectric transducers (col. 5, l. 65-col. 6, l. 2). Each stimulator 16 is composed of an upper backing plate 31, a pair of piezoelectric transducers 32 and 33 which are preferably thickness mode ceramic transducers, a stimulator mounting or attaching plate 34 which also functions as an electrode for transducers 32 and 33, resilient mounting members 35 which also acts as electric insulators, and a force transmitting member 36 (col. 6, ll. 3-9). Each stimulator member 16 is secured together by bolt 37 which also acts as an electrode for transducers 32 and 33 such that an electrical current can be passed through the transducers between mounting plate 34 and bolt 37 (Id., ll. 10-13).

In framing the present rejection, the Examiner stated the following:

"Cha disclose (claim 6) a plurality of independent stimulator means in combination with a pressure plate. The use of a clamp having multiple pressure capability would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the multiple pressures provide better control of the workpiece during various processing steps."

Cha cannot even be considered analogous art for the purpose of constructing the present rejection under 35 U.S.C. §103(a). Cha does not disclose the use of a clamp. The stimulator members taught by Cha are not clamps. Moreover, the stimulator members

of Cha are not 'support segments' as recited in Applicants' amended independent claims 17 and 26.

Cha cannot cure the deficiencies present in the combinations of Morse in view of Hansen, Morse in view of Baylis and Morse in view of Rosenwasser.

The combination of the references applied by the examiner does not lead or render obvious an apparatus and method for machining a plurality of workpieces as claimed in Applicants' amended independent claims 17 and 26, and dependent claims 21, 23, 24 and 28.

In light of the foregoing remarks and amendments, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. §103(a) and find that claims 21, 23, 24 and 28 are allowable.

Conclusion

In light of the foregoing, it is submitted that all of the claims as pending patentably define over the art of record and an early indication of same is respectfully requested.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,
JIE-WEI CHEN ET AL.

By



Ross J. Christie
Attorney for Applicant
Reg. No. 47,492
Tel: (203) 777-6628 x116
Fax: (203) 865-0297

Date: January 10, 2007

I, Ross J. Christie, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mail Stop Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on January 10, 2007.



Ross J. Christie